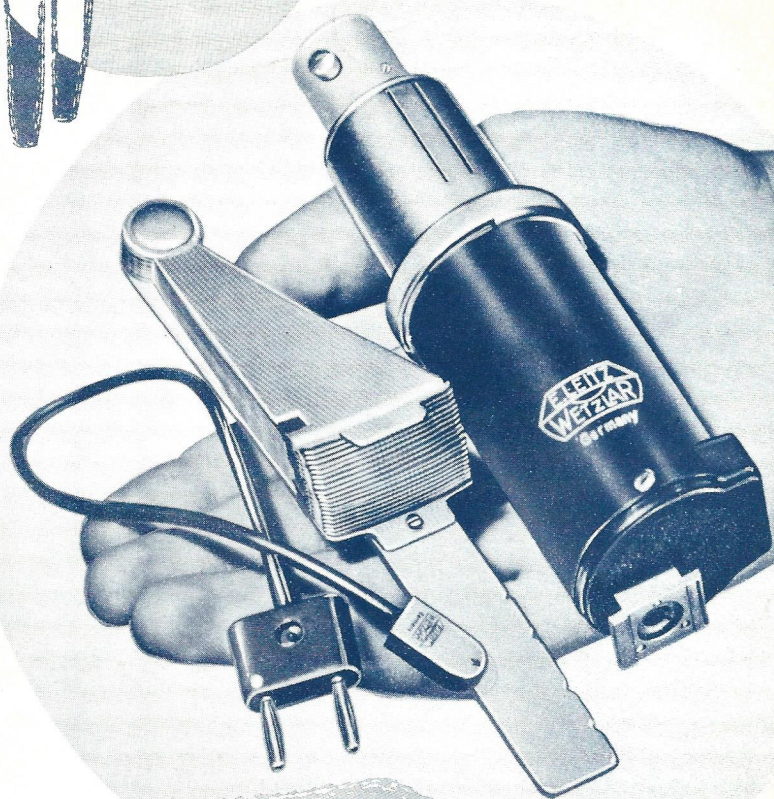


**PALMFUL OF SUNSHINE  
FOR YOUR PICTURES**



*Leica*

**FLASH UNIT**



Here is the answer to the problem of bulky flash equipment! Finished with traditional Leica precision, the Flash Unit packs  $22\frac{1}{2}$  V. of power into a battery case only  $4\frac{1}{4}$ " long. It slips into your pocket or gadget bag almost unnoticed, goes into action in a minute. Never again will you miss a memorable picture because "it was too much trouble to carry along the flash gun".

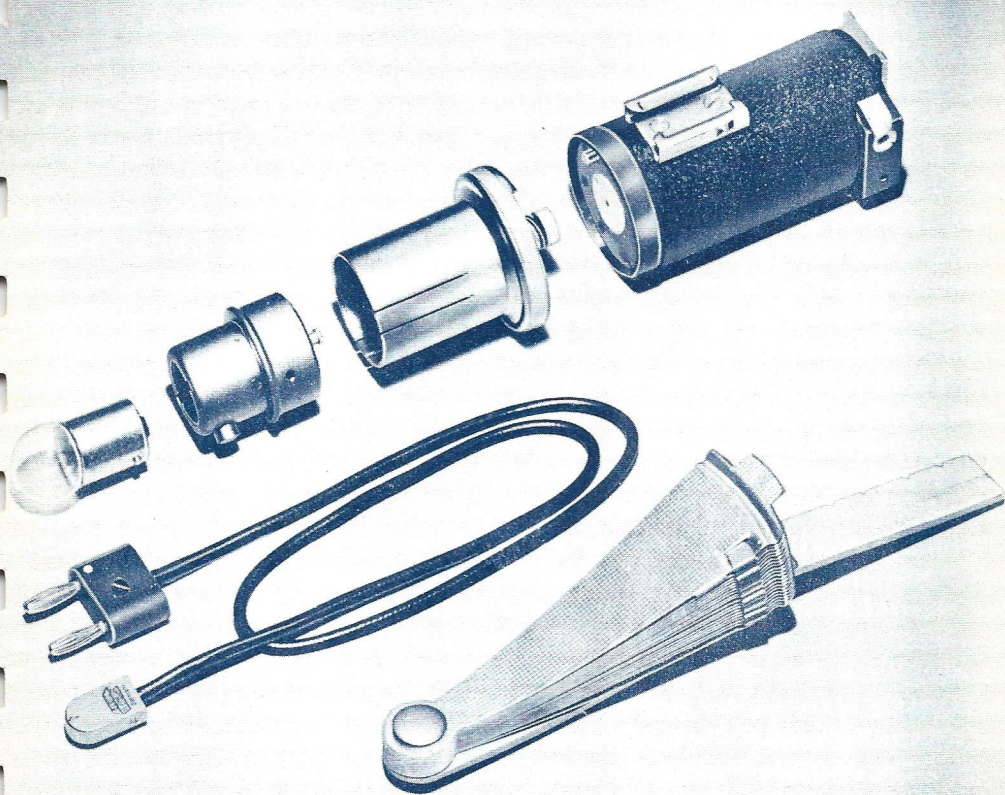
The Leica Flash Unit is designed specifically for Leicas If, IIf, and IIIf. An accessory angle bracket for the Leica gives you varied one-bulb lighting right from the camera.

You can also use the flash unit with other cameras. No matter which you use, here's what the Leica Flash Unit offers you:

1. Weighs but  $6\frac{1}{2}$  ozs. (Minus battery).
2. Collapsible, matte finish  $6\frac{1}{2}$ " reflector of rustproof aluminum eliminates hot spots and corner light-loss, even with wide angle lens.
3.  $22\frac{1}{2}$  V. Battery-Capacitor unit fires up to 10 bulbs in perfect synchronization every time.
4. Battery life of over 1 year.
5. Battery case fits Leica and other accessory clips, or can be tripod-mounted.
6. Connecting cord easily adapted to any synchronizer.
7. Midget bulb adaptor has bulb ejector, snap-locks instantly into standard holder.
8. Spring-loaded contact point for positive connection with bulb.
9. Fool-proof cord sockets insure proper connections.
10. Use of Extension and Multiple Flash.
11. Centering of any recommended bulb.
12. Extension cords for varied off-camera lighting.



# **TAKING FLASH PICTURES WITH THE LEICA FLASH UNIT AND LEICA MODELS If, IIIf AND IIIIf**



**FIGURE 1**

Your Leica Flash Unit includes a folding reflector, connecting cord and battery case. There is also a test bulb for checking the operation of the unit.

The 6½" fan-folding reflector takes up practically no storage space and can't rust or lose reflectance. Its embossed surface spreads light evenly over the whole picture area. The battery case has three parts (see fig. 1)—the case itself, the standard bulb socket, and the midjet bulb adapter. It holds the 22½V. B-C unit which fires the flash bulbs. You can snap the midjet bulb adapter in or out of the standard socket instantly for a quick change of bulb types, or to use the test bulb to check circuits and connections.

## THE REFLECTOR

The embossed reflector spreads light evenly over a wide area. It eliminates "hot spots", and light loss at the edge of the picture, even when you use the 35 mm. Summaron Wide Angle lens. To open it, grasp the projecting lip on the top segment. A small flange on the fixed segment interlocks with a flange on the top segment to keep the reflector open.

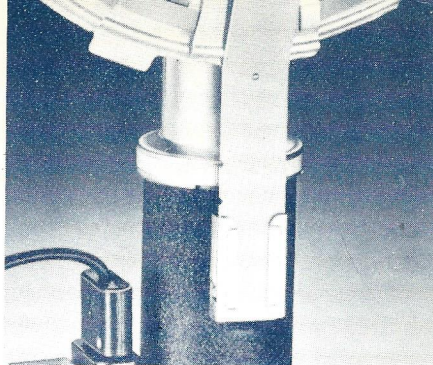


FIGURE 2

Slide the neck of the reflector into the clip on the back of the battery case. A series of four small notches on the neck engage a v-stop inside the clip to hold the reflector at a given height (see fig. 2). This lets you center the reflector on any size bulb. A push or pull disengages the reflector for removal or shifting to a different notch.

## SOCKETS

### BAYONET BASE

The top socket on your battery case takes bayonet base bulbs. Engage the studs in the bulb base with the slots inside the socket and press down on the bulb. It will automatically catch and lock in place. To remove a used bulb, press the button on the side of the socket. A spring-loaded contact will push the bulb loose.

Removing the bayonet socket exposes the standard socket. To get the smaller socket off, twist it slightly until you feel it "give". Then pull it up and out. To reinsert it, just press it into place and turn until the red dots on each socket are aligned.

### STANDARD BASE

To insert a standard bulb in its socket, just press it down firmly as far as it will go. It is held in place by spring clips. Release used bulbs by pulling them up and out.

## B-C UNIT

To remove or replace the B-C unit, grasp the milled collar of the standard socket. Give it a slight turn counter-clockwise to disengage the bayonet flanges which hold it in place. Lifting the standard socket off exposes the B-C unit which drops in or out of the battery case easily.

## MOUNTING THE FLASH UNIT

With reflector, B-C unit and proper bulb socket assembled, slide the foot on the battery case into the accessory clip on top of the Leica. (The foot also fits most accessory clips on other modern cameras. Or you can buy a Leica Accessory Clip to attach to other cameras). Or, you can mount the flash unit on top of the Imairect Finder.



To use the unit off the camera for different lighting effects, use the accessory 5' extension cord. Attach the battery case to a tripod or clamp, using the threaded socket in the battery case foot.

## CONNECTING BATTERY CASE AND LEICA

The connecting cord has a camera plug and a two-pin plug for the socket at the base of the battery case (see fig. 3). The positive pole is shown by the red dot on all sockets. These dots should always be matched up when connecting the sockets.

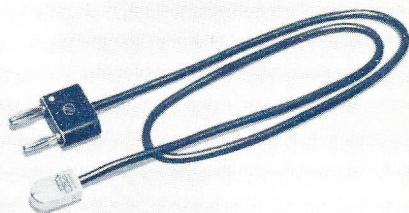


FIGURE 3

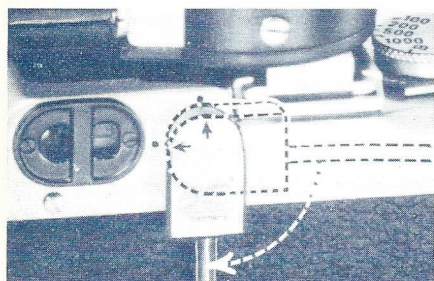


FIGURE 4

To connect the camera plug, hold it horizontally (arrow facing the viewfinder) and press it firmly home; then give it a quarter-turn clockwise to lock it in place (see fig. 4). (On the Leica If, the arrow points to the camera lens instead of the viewfinder windows.)

Reverse these steps to remove the plug.

## MAKING THE PICTURE

The Leicas If, IIf and IIIIf synchronize at all speeds with the Flash Unit. But the Synchro-Dial must be set according to the shutter speed and bulb you are using, to get perfect synchronization. Determine the proper setting by referring to the Flash Factor Tables. (Note: Black Scale models of the Leica have separate tables). These list settings and correct exposure guides for various film, bulb and shutter combinations.

Here are the steps to follow in taking a flash picture:

1. Compose your picture.
2. Focus and read off the camera-to-subject distance (when using unit on the camera) from the Distance Scale on the lens.
3. Choose your shutter speed.
4. From the Flash Factor Table, find the proper Synchro-Dial Setting and guide number for the film, bulb and shutter speed you are using.
5. Set the dial to the recommended number.
6. Find and set proper aperture by dividing bulb-to-subject distance into the guide number. (Example: Plus-X Film, GE #6 bulb,

- 1/100 Second, Guide No. 68, distance to subject 12 feet [ $68 \div 12 = 5.66$ ] set aperture at  $f/5.6$ . This exposure is for average size, light-colored rooms. In small light-colored rooms, close down one stop; in large or dark-colored rooms, open up one stop).
7. Proceed with taking the picture as you would normally, when not using the flash attachment.

**Note:** Insert a bulb into the flash unit at least 10 seconds before you take the picture. This closes the circuit and allows the capacitor to reach full charge.

Since there is some battery drain while a bulb is in the unit, do not put a bulb in place until shortly before you are ready to shoot. Otherwise, you will shorten the battery life.

"Focal-plane" type bulbs are recommended for best results with the Leica.

## LEICAS WITH BLACK SYNCHRO-SCALE

Earlier II $f$  and III $f$  Leicas have a Synchro-Scale with black numbers. The black scale settings are different from the red scale settings. Be sure to use the correct Flash Factor Tables for the Leica model you use.

## EARLIER LEICA FLASH UNITS

Early models of this flash unit use four pen-light cells (6V) for power. You can convert these to B-C by substituting a Leica B-C insert and 22 $\frac{1}{2}$ V. battery for the pen-light cells. No alteration is necessary. You can use the early model flash units for either B-C or pen-light battery operation; current models come with B-C only.

## EXTENSION AND MULTIPLE FLASH

Multiple and extension flash are simple with either power source. For extension flash, use the 5' extension cord and connect flash unit and camera connecting cord with it. Two or more cords can be connected to place the unit farther from the camera.

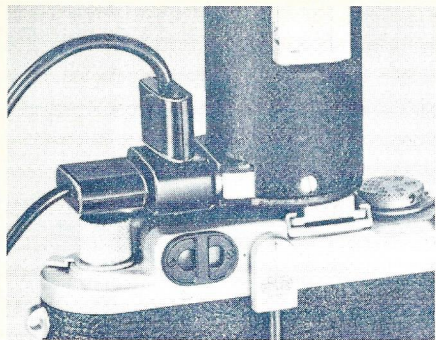
For multiple flash, you will need a complete flash unit for each bulb.

You will also need a Multiple Flash Plug and one or more extension cords, depending on the number of units and their distance from the camera.

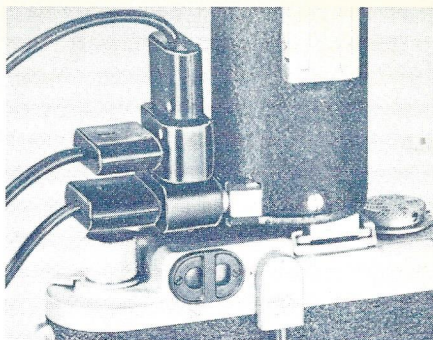
First, insert the Multiple Flash Plug into the battery case. Into this, plug the connecting cord for the camera. Now, put bulbs into each Flash Unit and allow ten seconds for capacitors to charge. The units are connected in parallel. If you do not insert the bulbs *before* connecting the units, they may fire prematurely because of voltage differences among charged and uncharged capacitors.

**Note:** Do *not* mix 6 volt pen-light units and 22 $\frac{1}{2}$  volt B-C units in a multiple set-up. All units should be one type or the other. All bulbs should be the same type, for the reason given above.





**FIGURE 5**



**FIGURE 6**

With bulbs inserted, connect female plug on the extension cord to the Multiple Flash Socket. The male plug on the extension cord connects to the extension battery case. The male plug on the camera connecting cord is put into the top female socket of the Multiple Flash Plug. This is the set-up for one unit on the camera and one off the camera (see fig. 5). Three units may be fired in multiple by using two Multiple Flash Plugs and two extension cords (see fig. 6).

## **MULTIPLE FLASH KIT**

You can now get a Leica Multiple Flash Kit which provides series connections to the B-C unit on the camera and to additional Multiple Flash Kits. The series hook-up eliminates premature firing of bulbs and lowers amperage through the synchronizer contacts in the camera. At the same time, it gives ample current for synchronizing up to 10 units. It also eliminates the need for a separate power source for each extension unit.

The Multiple Flash Kit consists of: standard reflector, test lamp and battery case with series insert in place of the B-C insert; one 5' extension cord and a series plug to connect battery case, extension cord and camera.

## **USING THE TEST LAMP**

Occasionally, you may want to test battery strength and connections on your flash unit. You can do it easily with the test bulb. Here's how:

With the test bulb inserted, plug the connecting cord not quite all the way into the battery case socket. Leave enough space between socket and plug to slip a knife blade across the prongs of the plug. Short the terminals with a knife blade, nail file, etc. If the test lamp lights, your batteries are strong enough and the connections are sound.

Do *not* store the test bulb in the socket when you are not using it. As mentioned above, when you put a bulb in the socket, the circuit is closed and there is battery drain.

Note: If you own an earlier Leica and would like to take advantage of the new Flash Unit, you can now have Models Ic, Iic and IIc converted to IIIc. Ask your Franchised Leica Dealer for prices.



## PRICES

	Catalog Number and Code Word		Retail Price
Flash Unit .....	16,020	CEYOO	\$24.00
(Includes battery case, sockets for standard and bayonet base bulbs, folding reflector, B-C insert with 22½ V. battery, test lamp and connecting cord with removable female socket).			
Adapter to fit Flash Unit to Leica If.....	16,025	ZIOOQ	0.90
Leica Accessory Clip for mounting flash unit on cam- eras other than Leica.....	10,027	CLIPP	1.20
B-C Insert with 22½ V. battery. (As replacement)....	16,080	COOWZ	3.85
Male Plug for connecting flash unit to synchronizers other than Leitz make.....	16,102	COOMU	0.90
Extension Cord, 5', for extension and multiple flash....	16,105	COOKT	3.30
Multiple Flash Plug .....	16,110	CNXOO	2.70
Angle Bracket for varied one-bulb lighting effects with Leica .....	16,125	CTOOM	6.60
Multiple Flash Kit, for series connections. Includes standard reflector and test bulb, 5' extension cord, Series Insert and Series Plug.....	16,024	CEYSMF	27.00
Series Flash Plug (as replacement).....	16,112	SMFPBC	4.80
Series Insert (as replacement).....	16,082	SMFIBH	2.05

**E. LEITZ, INC.**

**468 Fourth Avenue, New York 16, N. Y.**

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